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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 09/727,473

Group Art Unit: 1742

Inventors: Van den Sype et al.

Filed: December 4, 2000

Title: PROCESS AND APPARATUS FOR
HIGH PRESSURE GAS QUENCHING
IN AN ATMOSPHERIC FURNACE

Examiner: Sikyin Ip

AMENDMENTAssistant Commissioner for Patents
Washington, DC 20231

Sir:

This is in response to the Office Action mailed October 3, 2001.

Please amend the above-identified application as follows:

IN THE CLAIMS:

a1

2. The process of claim 1 wherein the atmospheric furnace is a carburizing atmospheric furnace and the treating gas is selected from the group consisting of methane, carbon monoxide, hydrogen, nitrogen, pentane and butane.

3. The process of claim 1 wherein the quenching gas is at least one gas selected from the group comprising helium as the major component and one gas selected from the group consisting of nitrogen, hydrogen, argon and carbon dioxide.

a2

7. The process of claim 2 wherein the quenching gas is at least one gas selected from the group consisting of helium, nitrogen, argon and carbon dioxide.

IN THE ABSTRACT:

a3

This invention is directed to a process for heat treating components in an atmospheric heat treating furnace comprising the steps of treating a component in an atmospheric furnace with a treating gas; feeding the heat

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